

Electrical insulating material

Mylar® A | FI 13010

Structure: Mylar® A | FI 13010 is a Polyethylene terephthalate (PET)-film for electrical applications of insulation class B.

Characteristics: Mylar® A | FI 13010 is a material with excellent electrical and very good mechanical properties. It is applicable in environments of very low and high temperatures and shows best resistance to most chemicals as e.g. the common used solvents.

Appliance: Mylar® A | FI 13010 is used e.g. as a slot insulation or closure in low-voltage motors or as a layer-insulation in transformers and coils or in many electrical applications where a high electrical strength is needed.

Delivery form: Mylar® A | FI 13010 is delivered in rolls of ca. 900 mm, tapes (minimum width of 10 mm, also feathered), sheets, slot insulation or parts. Other delivery forms upon customer request.

Storage: Mylar® A | FI 13010 is unlimited storable at 20°C, 50% r.H. in original packaging.

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Property	Test method	Unit	Value					
			19	23	36	50	75	100
Total thickness		µm	± 12	±12	±12	±12	±12	±12
Area weight		g/m ²	27	32	50	70	105	140
Area yield		m ² /kg	38	31	20	14	9,6	7,2
Tensile strength								
Longitudinal	ASTM	N/mm ²	≥210	≥210	≥230	≥190	≥190	≥190
Crosswise	D 882	N/mm ²	≥230	≥230	≥260	≥210	≥200	≥200
Elongation								
Longitudinal	ASTM	%	≥110	≥130	≥130	≥140	≥140	≥150
Crosswise	D 882	%	≥110	≥110	≥110	≥120	≥120	≥120
Shrinkage								
Longitudinal	ASTM	%	≤1.3	≤1.3	≤2.0	≤1.2	≤1.1	≤1.1
Crosswise	D 882		≤1.0	≤1.0	≤1.7	≤1.1	≤1.0	≤1.0
Breakdown voltage	ASTM D 149	kV	3	4	5	8	10	12
Dielectric constant AC 50 Hz, 25°C	ASTM D150	-	3.3					
Dielectric dissipation factor at AC 50 Hz, 25°C	ASTM D150	-	0.0025					
Specific volume resistance at 25°C	ASTM D 257 / D 2305	Ω/m	10 ¹⁸					
Specific surface resistance at 30 % rel. air humidity, 23°C	-	Ω/m	10 ¹⁶					
Specific surface resistance at 80 % rel. air humidity, 23°C	-	Ω/m	10 ¹²					
Comparative Tracking Index	-	-	1					

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Property	Test method	Unit	Value					
			125	190	250	300	350	500
Total thickness		µm %	± 12	± 12	± 12	± 12	± 12	± 12
Area weight		g/m ²	175	265	350	418	480	670
Area yield		m ² /kg	5,7	3,8	2,9	2,4	2,0	1,5
Tensile strength								
Longitudinal	ASTM	N/mm ²	≥180	≥190	≥190	≥190	≥190	≥150
Crosswise	D 882	N/mm ²	≥200	≥220	≥200	≥200	≥190	≥170
Elongation								
Longitudinal	ASTM	%	≥150	≥190	≥210	≥210	≥240	≥270
Crosswise	D 882	%	≥130	≥140	≥170	≥180	≥200	≥240
Shrinkage								
Longitudinal	ASTM	%	≤1.1	≤1.3	≤1.3	≤1.3	≤1.3	≤0.9
Crosswise	D 882		≤1.0	≤1.3	≤1.3	≤1.3	≤1.3	≤0.9
Breakdown voltage	ASTM D 149	kV	13	17,5	19	19	20	20
Dielectric constant AC 50 Hz, 25°C	ASTM D150	-	3,3					
Dielectric dissipation factor at AC 50 Hz, 25°C	ASTM D150	-	0,0025					
Specific volume resistance at 25°C	ASTM D 257 / D 2305	Ω/m	10 ¹⁸					
Specific surface resistance at 30 % rel. air humidity, 23°C	-	Ω/m	10 ¹⁶					
Specific surface resistance at 80 % rel. air humidity, 23°C	-	Ω/m	10 ¹²					
Comparative Tracking Index	-	-	1					

Thickness	0,015	0,023	0,036	0,05	0,075	0,10	0,125	0,19	0,25	0,30	0,35	0,50
Availability	●	●	●	●	●	●	●	●	●	●	●	●

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Trademark information: Mylar® is a registered trademark of the company DuPont.

Please note:

The information in this data sheet is based on our current knowledge and experience. They do not disengage the fabricator and user from own tests and inspections because of the plenty of possible effects. There is no judicial binding assurance of certain properties or of the qualification for a concrete application in our declaration. We recommend consulting us in individual cases. The acceptor of our products has to observe possible industrial property rights as well as present laws by himself.

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